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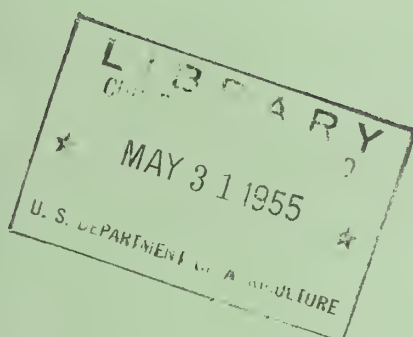
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FROZEN FOOD MOVEMENT Into Retail Outlets

**A test of the feasibility of measuring
frozen food movement at the wholesale level**



**U. S. Department of Agriculture
Agricultural Marketing Service**

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This study of frozen food movement was made possible through the cooperation of the wholesale frozen food distributors in Philadelphia and Washington, D. C. The study was conducted under the supervision of H. W. Bitting, Agricultural Economist, Agricultural Marketing Service. The study was carried out under authority of the Agricultural Marketing Act of 1946 (RMA, Title II).

FROZEN FOOD MOVEMENT INTO RETAIL OUTLETS

A Test of the Feasibility of Measuring Frozen Food Movement at the Wholesale Level

by Dehard Johnson
Agricultural Economist

Many frozen food packers, distributors, and brokers have indicated that information on the movement of their products into consumption would be a definite aid to an understanding of the market. As a result of this interest, the Agricultural Marketing Service conducted a pilot study to provide the industry with information on how it might carry out a reporting program and what might be expected of such a program.

The test was conducted in Washington, D. C., and Philadelphia, and included substantially all of the independent wholesale distributors and chain stores. A total of 10 firms in Washington, D. C., and 13 firms in Philadelphia participated in the test.

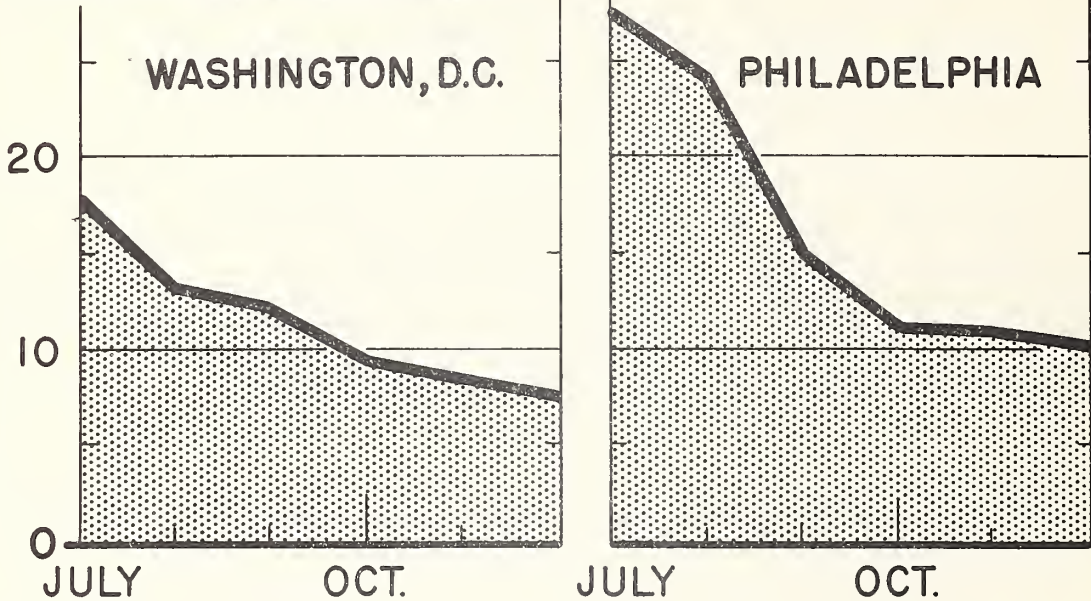
All wholesale frozen food distributors in the two cities were interviewed prior to the test. At these preliminary interviews, information was obtained on the products handled and the percentage of retail and institutional business for each firm. It was learned that those firms distributing to retailers generally did only a relatively small amount of institutional business. The cooperation of all such firms was obtained and their suggestions were considered in determining what commodities should be included and the length of the reporting period. In the planning phase of the study valuable assistance was rendered by the Frozen Food Marketing Institute.

Reports were submitted by each cooperating distributor for the months of July through December 1954. They covered sales of 12 items to retail stores. These were: Broccoli, cut corn, mixed vegetables, peas, spinach, peaches, strawberries, orange juice, grape juice, french fried potatoes, waffles, and chicken pies.

In this report, consideration will first be given to possible uses of this type of data and second to problems associated with establishing a similar reporting system on a larger scale. It should be noted that the data obtained in this pilot study covered only a 6-month period. The purpose is to illustrate the type of information that can be obtained in this manner. A longer period would be necessary to establish valid sales patterns and trends.

SALES OF FROZEN CONCENTRATED GRAPE JUICE TO RETAIL STORES, 1954

THOUS. DOZ. 6-OZ. CANS



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Figure 1

One type of statistics for which the frozen food industry has expressed a need is that showing seasonal pattern of sales in different regions for various commodities. Figure 1 gives a good indication of seasonal variation in sales of grape juice in one region. Well-established patterns would be helpful in storing reserve stocks for smooth and economical distribution.

If experience shows that a heat wave in a particular area always has about the same effect on grape juice sales, packers can ship accordingly and avoid temporary shortages followed by gluts. These data can also be helpful to packers or trade associations in conducting advertising campaigns. If such market information indicates a well-established sales pattern, both the immediate and long-range effects of sales efforts may more easily be gauged. Essentially what these data provide is a current check on the growth or decline in sales of a product.

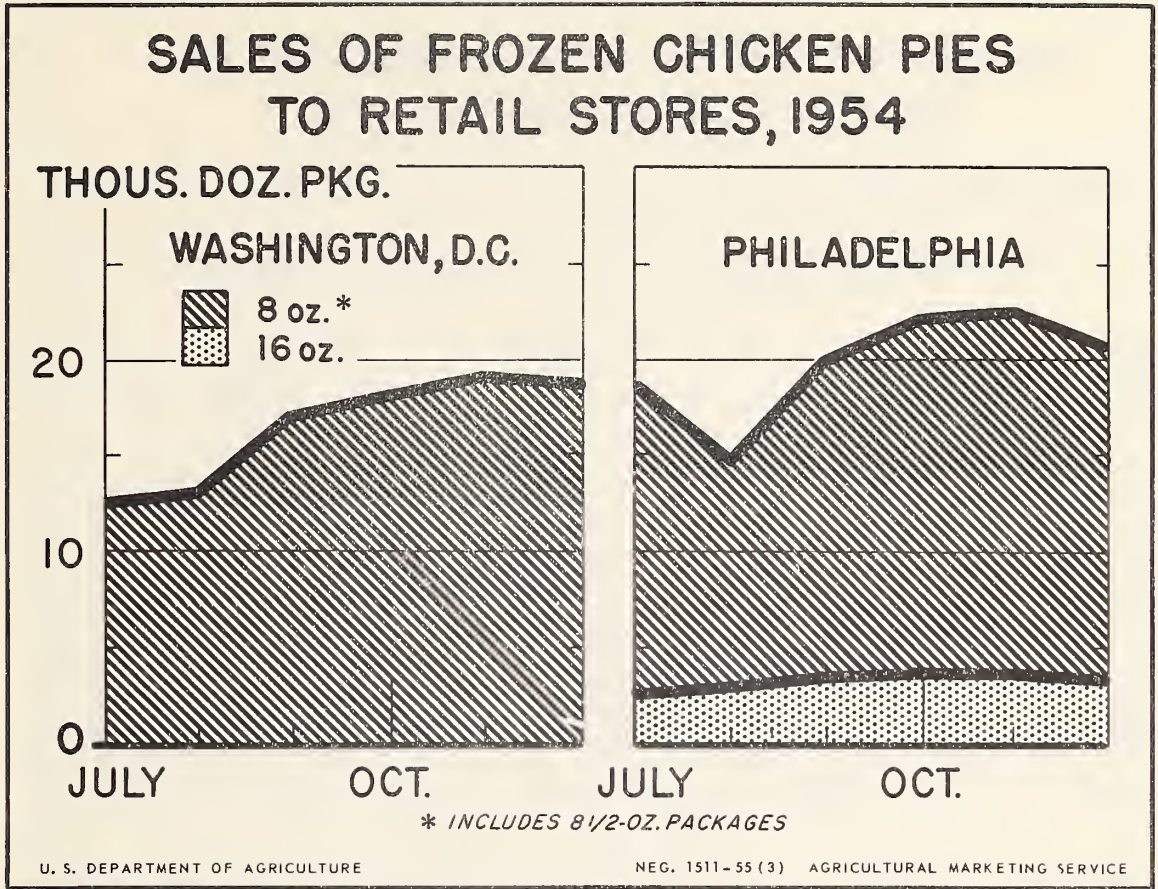


Figure 2

There was no really new product among those tested; however, the data for 16-ounce chicken pie (fig. 2) will serve to illustrate how the growth of a new product may be observed. This new-sized package, which was introduced in Philadelphia only a few months before this study, accounts for a substantial part of the market -- in fact, about 16 percent. Similar information on the sales pattern for a new product could provide a sensitive indicator of its success in different regions as well as a fairly accurate measure of its over-all performance.

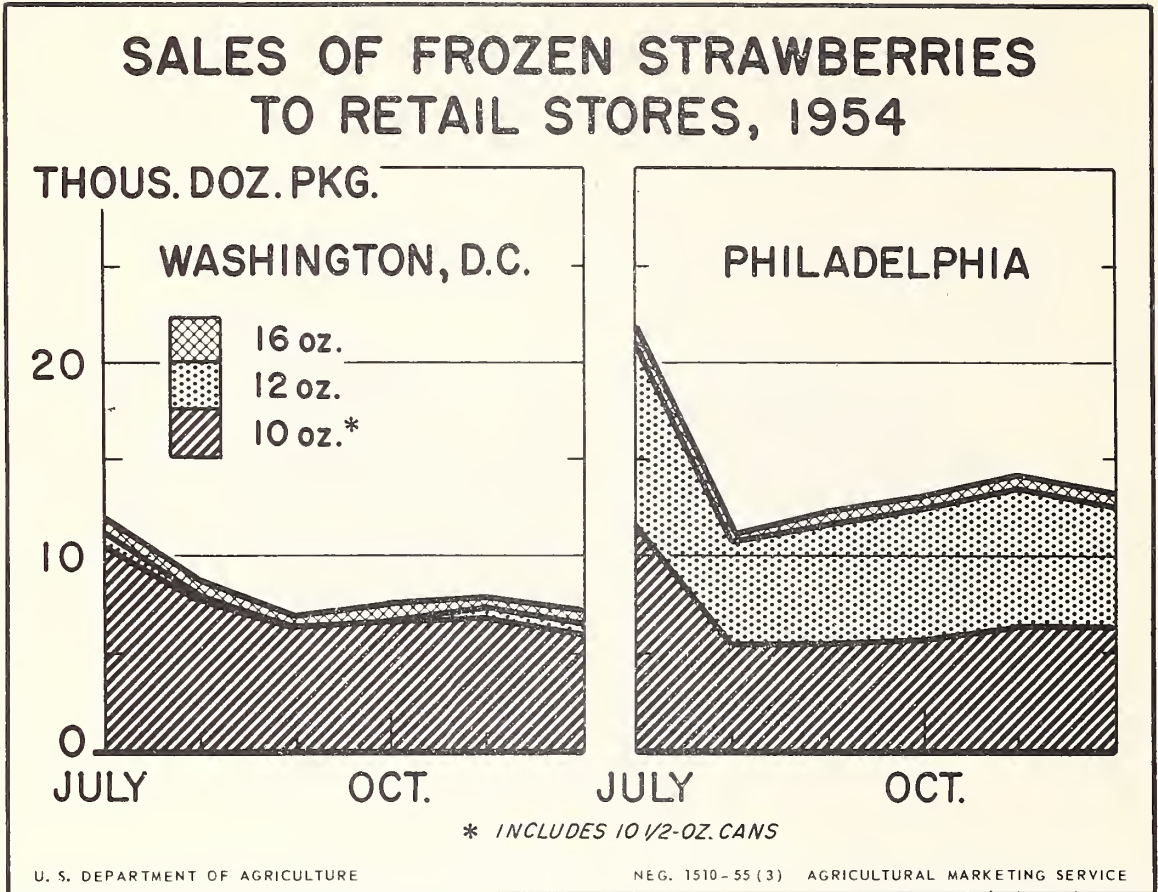


Figure 3

To what extent do package sizes reflect consumers' preferences and to what extent do they depend on dominant brands or distributors preferences? Figure 3 shows the pattern of sales of frozen strawberries in the two cities. Examination of the chart shows that the 16-ounce package accounts for a small, but consistent, portion of the total in each city. Note, however, the striking difference between cities in sales of the 10- and 12-ounce sizes. They are about equal in Philadelphia, while the 10-ounce size completely dominates the Washington market.

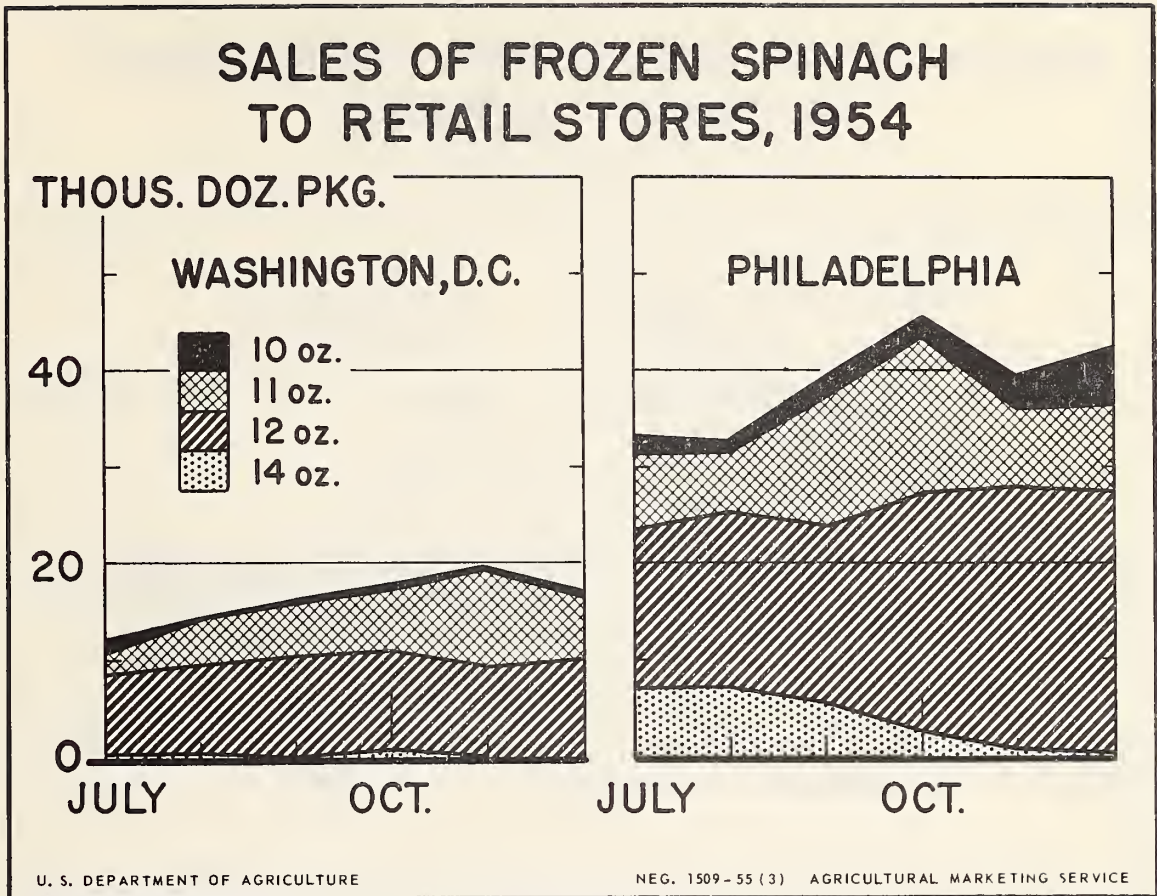
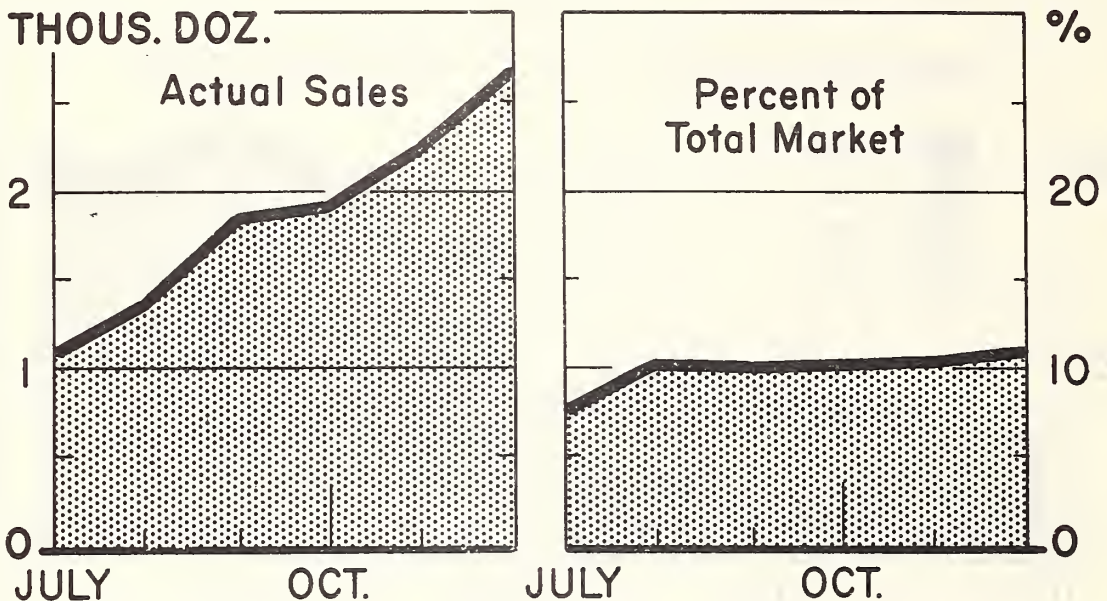


Figure 4

Figure 4 depicts a situation badly in need of correction. The presence of four different sizes of packages of spinach in a single market creates confusion and customer dissatisfaction, as well as pricing and display problems. There are indications that the situation is improving, though a longer period of observation would be necessary to determine which package size would survive. Sales of the 14-ounce package are definitely dropping off in Philadelphia, as has already occurred in Washington. On the other hand, the 10-ounce package seems to be growing in importance in Philadelphia.

SALES OF FROZEN MIXED VEGETABLES TO RETAIL STORES

Firm X, July-Dec. 1954



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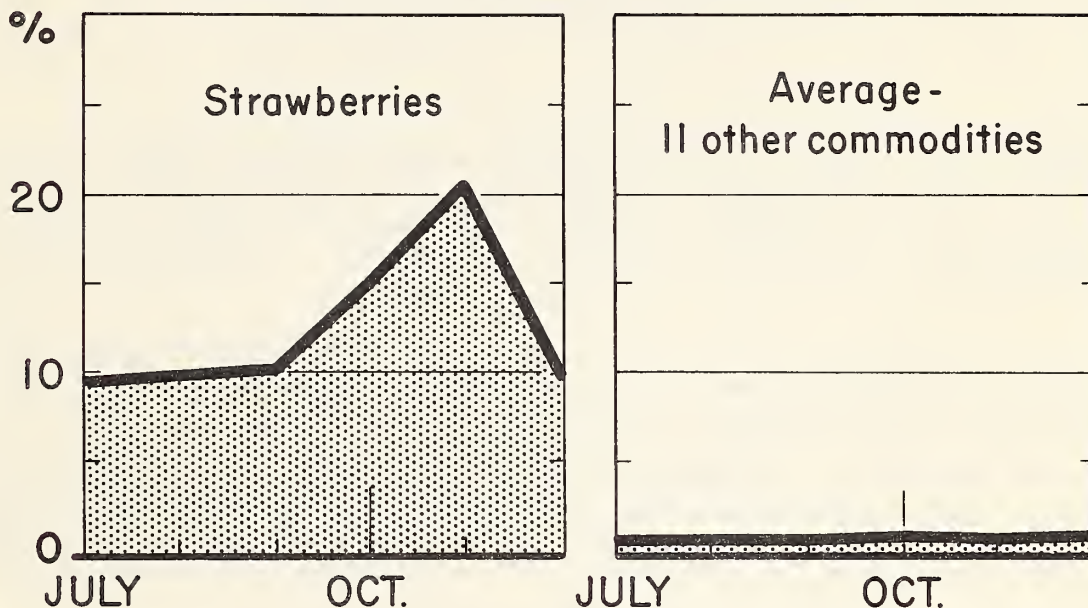
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Figure 5

When essentially all of the distributors in a market are included, as was the case in this test, it is possible for each one to check his sales against the performance of the group. An actual example drawn from the assembled data is shown in figure 5. Assume that this firm maintains good internal control on which to base managerial decisions. If actual sales are taken as a guide to the effectiveness of the sales effort, the picture is very good. However, a comparison with total sales in the market indicates that other distributors are enjoying similar sales increases. While sales have more than doubled for firm X, his share of the market has remained about 10 percent.

SALES OF FROZEN FOODS TO RETAIL STORES

Percentage of Total Market, Firm Y, July-Dec. 1954



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Figure 6

When individual firm sales are analyzed, there are often indications that some items move better than others. Information on what items sell best and why would provide a basis for planning a sales campaign for the others.

Here again, individual firm sales figures are not enough. The only way to determine how well an item is really doing is to measure sales for that firm against total sales in the market. The test data provided the example shown in figure 6. This firm sold at least 10 percent of the strawberries, even though sales of the other 11 items averaged only around 1 percent. This example points out the danger of generalizing on the basis of one's own sales figures, which are very likely not indicative of sales for the market as a whole.

Much of the value of this type of market information depends on prompt release. Herein lay the only difficulty encountered during the test period. Most distributors completed and returned the reporting forms within 2 or 3 weeks after the end of each month. However, since complete coverage was necessary for analysis, summaries could not be released until all reports were in. The result was a lag of 6 weeks or more in getting the monthly summaries out to the cooperating firms. No doubt some of the more interested participants were disappointed in the delay, but, under the circumstances, it was the best that could be done.

This experiment has demonstrated that information on frozen food movement can be obtained at the wholesale level, and has provided information on the mechanics of data collection. Should the industry decide to put a similar system into operation, decisions would have to be made concerning what commodities to include and what type of coverage should be attempted.

A good reporting system should provide for flexibility in adding or dropping commodities as the need for information changed. This is a dynamic market, with prospects for rapid growth and adjustments. Products representing the various use-groups should be included -- an item of seafood, a vegetable, a dessert, a juice, and so forth. To avoid duplication, careful consideration should be given to the need for including closely similar items. For example, the lemonade sales pattern would be similar to the grape juice pattern to the extent that both are dependent on weather. Unnecessary items detract from the usability of the data and should be eliminated when no longer useful.

Most distributors handle 100 or more items. How many should be included in a reporting system? A few carefully selected items would be sufficient to begin with. The success of a reporting system will be judged on flexibility and usefulness rather than number of items included.

It is not necessary, of course, to obtain reports from every distributor in the country, which poses some questions on methods of sampling and the effects of type of sample on the usefulness of the data. Should a sample be drawn on a city basis or a regional basis? Would data on New York City be adequate to appraise the northeastern market or would San Francisco be sufficiently representative of the West Coast? According to the 1950 Census, there are only 18 cities in the United States with a population of over a half million. These metropolitan areas probably account for a large part of total retail frozen food sales. If an index of sales in a number of large cities were sufficient, development of a reporting system could be more easily carried out than if a sample were established on a regional basis.

After deciding whether to base reports on large cities only or on a sample of cities throughout each region, it is necessary to consider the intensity of coverage in each city (in this case, a city would include its entire local market area). Sales data might be obtained from one or all distributors in a city. The number included would affect the way reports could be used.

Keeping individual firm sales confidential is of primary importance. This means that any information for public release must include combined figures for three or more firms. If the reporting system is established on a regional basis and kept within workable proportions, it is not likely that data on particular cities can be made available, because generally only one or two firms will be reporting. In other words, very little local information can be obtained from a sample designed to give only a regional or national picture.

Nearly complete coverage was obtained in the recent test. The comparisons shown in figures 5 and 6 depend on the participation of a number of local distributors. Complete coverage is not necessary, but cooperation by a number of local distributors is necessary before this type of information can be obtained. An extensive reporting system would not furnish such data. A local group not interested in comparisons between cities or regions could arrange to have local reports simply by getting together and choosing an impartial person or firm to summarize the information for them.

Accurate market information substitutes facts for guesses. This experiment has pointed to one method of obtaining current information on frozen food movement. Its purpose is to indicate how such information might be obtained and how it might be used.

